

TOMATOES
POTATOES
BARN

GUY ELLIOTT MITCHELL.

Tomatoes For the Cannery.

Raising tomatoes for the canneries has grown to be quite an industry in a number of States. Maryland leads the list with about two million cases per annum; Indiana, with her million cases, second; followed, in turn, by New Jersey, California, Delaware and Ohio. The canneries are permanent institutions, the demand is increasing, and there is no reason why the growing of tomatoes will not continue to be a profitable business with many.

Growing tomatoes for a cannery differs from raising them for the market. In the former case, first of all, a large yield is sought. Early maturity is of less importance. Since the grower contracts to sell the whole crop at a fixed price. It is said that good corn land is rich enough for tomatoes, although medium clay loam is preferred by many.

Splendid results follow fall or winter plowing. At any rate land should be plowed as early in the spring as possible. Plow deep and follow with earth mulching, that is, maintain a thin layer of fine earth on the surface by shallow cultivation, which will be of great value in saving the moisture. The variety should be such as the canneries prefer. They will generally provide the plants at a nominal price to those who grow tomatoes for them. In case it is preferred to grow the plants near where they are to be set, they should be started in a cold frame or on the south side of a board fence in a rich warm soil. The plants will increase to proper size in four or five weeks, and should be set out in the field in rows about four feet apart, for ease of cultivation. Start the cultivation early, but be careful not to bark the plants, as that will kill them. When they begin to branch do not cultivate closer than the ends of the branches. Continue stirring the soil

A New Potato Culture.

A queer tale in agriculture comes by way of Chicago. It is stated that a half-bushel of sawdust, a dash of chemical solution and fifteen potatoes carefully enveloped with the sawdust will enable the average householder to grow a bushel of tubers on his house-top or in his cellar within sixty days. This process has been discovered and elaborated by W. D. Darst, of Great Falls, Mont. Moreover, the grower will have no potato bugs to contend with, no turning over of the soil at certain intervals, and no contest with worms.

The product of Mr. Darst's process is termed the "vineless potato" from the fact that, grown under these apparently unnatural conditions, there is no surface vegetation, because of which, each potato buried in the sawdust is enabled to produce at least twelve normal-sized tubers.

Recently at the Oakland Hotel, in the rear of the Oakland Plaza, Mr. Darst disclosed the methods of growing potatoes by his system. Operating on the theory that the presence of surface vegetation was only a method of securing nourishment and in reality sapped the vitality of the tuber, Mr. Darst experimented more than six years and found he could overcome this seemingly natural course on the part of the plant by supplying it artificially with its needs.

By employing sawdust, peat, straw, or any other earth product that would permit of the circulation of air, moisture and heat, and by applying solutions of various fertilizers, discovered that a single potato would multiply itself by attaching to itself from twelve to sixteen other potatoes of approximately the same dimensions without throwing off any of its energy above ground.

Packed in loosely arranged bins permitting the free access of air and arranged in rows six inches above each

matter of fact, what are commonly regarded as the petals of the dogwood are no part of the floral structure at all, but merely four large white leaves, which, during the winter, served as protective wrappers to the flower buds. The real flowers are about the size of shoe-pegs, of greenish color and are bunched several together in a small cluster in the midst of the four white leaves, and if observed at all by the average wild flower gatherer, are mistaken for stamens.

So, too, with the flowers of the pretty "painted cup," which when it blossoms in May frequently makes whole meadows rosy with brilliant color. Plucking one, we may think we are looking at a pike of gorgeous, flame-colored flowers, while the fact is that the striking effect is produced entirely by numerous reddened leaves intermingled with the real flowers which are as plain as Cinderella's sisters and practically hidden from sight.

Indeed, so fond is Mother Nature of befooiling her unobservant devotees that she has caused one whole family of plants to be given over to this make-believe habit of flowering. To it belong that favorite little preacher of the April wood—Jack-in-the-pulpit; the arrow arum that shares with the

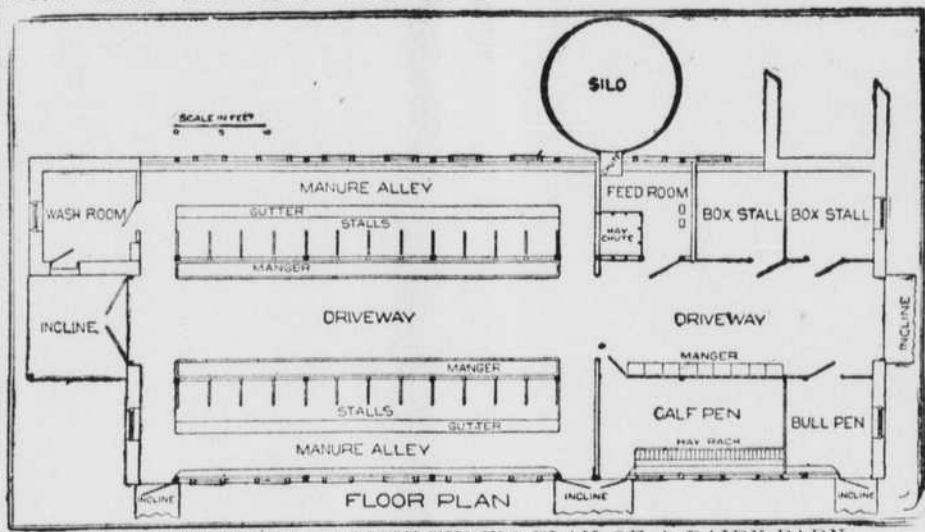
first, it allows ample room for the stalls and passageways, and, second, it permits of the most economical use of lumber in building. The length shown is 84 feet, but this feature is wholly dependent on the number of cows the dairyman wishes to handle. One of the weakest joints in barn construction is the small amount of window space usually allowed. This error is rectified by the Department in this plan by allowing approximately 6 square feet for each cow.

The bulletin or circular may be obtained by application to the Department of Agriculture. (Circular 90, B, A. 1.)

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DEPARTMENT OF AGRICULTURE'S PLAN OF A DAIRY BARN.

paddock and pickered weed the muddy margins of shallow streams; the skunk cabbage, and that aristocrat of the greenhouse, the immaculate calla lily. With all these flowers are unrecognizable in themselves as such, except by the initiated, being minute and crowded on a fleshy spike.

Another gay deceiver is the poinsettia of the hot-house. In this case it is a circle of scarlet leaves which popular estimation rates as a flower, while the poor little real blossom clustered in the midst of the robbers of their good name live and die unappreciated. Relatives of our sandy fields. The flowers of many of these, inconspicuous in themselves, are similarly provided with relatively showy appendages, deceiving all but students.

Model Dairy Farm.

The Department of Agriculture has recently published a bulletin containing suggestions for constructing a model dairy barn. It has been the endeavor of the Department to plan a barn embodying the best ideas in scientific and sanitary construction that are consistent with practicability and cheapness, and it is believed the result accomplished by the plan published will help the dairyman to get the best products from his cows in the most economical manner.

The plan is designed for 24 cows, and allows ample room for calf pens and box stalls for bull and cows; also space for feed room, hay chute, wash room and silo. In presenting the plan it is not intended by the officials of the



GROWN IN THE GOOD OLD-FASHIONED WAY.

until the stalk has grown so heavy as to fall upon the ground, then cease.

For heavy yields it is essential that strong land or heavy fertilization be used. While it is true that on many of the soils in the Middle States a remunerative crop may be produced with little fertilization, it is also true that, on nearly all of these soils a liberal use of fertilizers will be profitable.

The tomato plant is a gross feeder, and especially requires an abundant supply of potash. Prof. Voorhees, of New Jersey, who is authority on such subjects, estimates that ten tons of fruit, with the accompanying vines, would contain fifty-seven pounds of nitrogen, sixteen pounds of phosphoric acid, and ninety-four pounds of potash. On many of our clay lands phosphoric acid is relatively low, and the application of potash is needed to produce the most profitable crops. The nitrogen supply is more variable, and can often be secured by turning under a leguminous crop. On Eastern lands, which have been devoted to last year's tomatoes, nitrate of soda can be used with a profit. In the Central States, manufacturers of fertilizers have not offered goods specially prepared for this vegetable because of a lack of demand, due largely to the ignorance of same, and from lack of knowledge of the requirements of the soil. But for late both the growers and the canners are asking for advice regarding fertilizers to be used on tomatoes. A mixture that has been officially recommended contains:

Nitrogen 4 per cent.
Phosphoric acid..... 7 per cent.
Potash12 per cent.

using about 500 pounds of this mixture per acre.

Some experiments of early tomatoes seem to indicate that sulphate of potash gives them a better quality. A properly made tobacco fertilizer is also suited for this crop, and the potash in it is derived from sulphate.



LEAVES WHICH POSE AS BLOSSOMS.

has attended them Mr. Darst, it is stated, has the endorsement of Luther Burbank, the eminent horticulturist and botanist.—From Chicago Record Herald.

Counterfeit Blossoms.

When the dogwood, he would be a very unobservant traveler who did not know it; yet it is questionable if one out of fifty of the multitude of people who come home from their country walks with their arms full of snowy branches has ever noticed the real flowers of this beautiful tree. As a

Department to insist that the arrangement shown is the only satisfactory one, but the idea is to present some important features often overlooked by the builder and which are vital to a well-planned structure.

The amount of space allowed for the various purposes named on the plan is thought to meet the requirements so far as the square feet of floor space is concerned. The arrangement of the space can be adapted to the needs of the particular location.

The design calls for a width of 36 feet 4 inches outside. There are two main reasons for adopting this width;

This seems a

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